FROM
YOUR CONGRESSMAN

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11TH DISTRICT OHIO

FAMILY FOOD STOCKPILE FOR SURVIVAL

Home and Garden Bulletin No. 77

U.S. DEPARTMENT OF AGRICULTURE

This publication has been prepared by the U.S. Department of Agriculture in cooperation with the Office of Civil and Defense Mobilization.

The Office of Civil and Defense Mobilization recommends two methods of home food storage for emergencies:

1. Increase your regular food supply so there will always be a 2-week supply of food for your family in your home. Replace food as it is used.

2. Store and maintain in your fallout shelter or home a special 2-week stockpile of survival foods. Choose foods that will keep for months without refrigeration, require little or no cooking, and yet will provide a reasonably well-balanced family diet.

Decide which type of food reserve best meets your own situation. In some cases, a combination of these two methods may be desirable. The important thing is that you have enough food in your home or shelter to last until it is safe and possible to get other foods.

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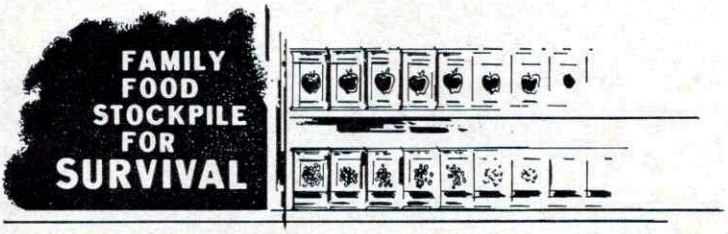

An attack on the United States with an atomic or hydrogen bomb would make it necessary for many survivors to rely on their own food and water reserves—for up to 2 weeks following attack.

An H-bomb explosion can blanket an area many miles from the target area with dangerous radioactive fallout. If you and your family survive the explosion, you may have difficulty obtaining food and water from regular sources without overexposure to fallout radiation. Essential services, such as gas, electricity, and water, may be disrupted.

Safeguard your family's survival by planning your food-and-water stockpile now. Start building it up in your home or fallout shelter. Maintain it. Doing this is an individual and family responsibility.

This responsibility is placed directly on the individual citizen and family by the National Plan for Civil Defense and Defense Mobilization:

> *"Individuals and families will be prepared to exist on personal stocks of survival items in their homes and shelter areas for 2 weeks following attack."*

As soon as possible after attack—if there is one—local authorities will inform you of safe sources of food and water.

FOOD

Every family should either build up and keep a 2-week supply of regular food in the home at all times or assemble and maintain a special 2-week stockpile of survival foods in the fallout shelter or home.

Stockpile foods should be in cans, jars, or tightly sealed paper containers. Select foods that will last for months without refrigeration and can be eaten with little or no cooking.

Take into consideration the needs and preferences of family members. Familiar foods are likely to be more acceptable in times of stress.

Kinds and quantities of food suitable to store for emergency use are shown in table 1. Amounts suggested will supply the calories needed by one adult for 2 weeks. If your family consists of four adults, store four times the amount

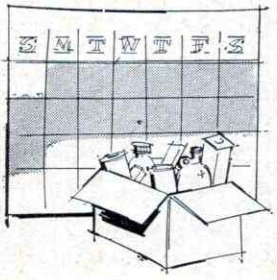

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TABLE 1.—*Guide for Reserve Food Supply*

Kind of food	Amount per person for—		Remarks
	1 day	2 weeks	
1. Milk	Equivalent of 2 glasses (fluid).	Equivalent of 7 quarts (fluid).	Each of the following is the equivalent of 1 quart of fluid milk: Evaporated milk: three 6-ounce cans; one 14½-ounce can. Nonfat dry milk or whole dry milk: three to 3½ ounces.
2. Canned meat, poultry, fish, cooked dry beans, and peas.	2 servings	28 servings (8 to 9 pounds).	Amounts suggested for one serving of each food are as follows: Canned meat, poultry: 2 to 3 ounces. Canned fish: 2 to 3 ounces. Canned mixtures of meat, poultry, or fish with vegetables, rice, macaroni, spaghetti, noodles, or cooked dry beans: 8 ounces. Condensed soups containing meat, poultry, fish, or dry beans or dry peas: one-half of a 10½-ounce can.
3. Fruits and vegetables	3 to 4 servings	42 to 56 servings (about 21 pounds, canned).	Amounts suggested for one serving of each food are as follows: Canned juices: 4 to 6 ounces, single strength. Canned fruit and vegetables: 4 ounces. Dried fruit: 1½ ounces.

4. Cereals and baked goods	3 to 4 servings	42 to 56 servings (5 to 7 pounds).	Amounts suggested for one serving of each food are as follows (selection depends on extent of cooking possible): Cereal: Ready-to-eat puffed: ½ ounce. Ready-to-eat flaked: ¾ ounce. Other ready-to-eat cereal: 1 ounce. Uncooked (quick-cooking): 1 ounce. Crackers: 1 ounce. Cookies: 1 ounce. Canned bread, steamed puddings, and cake: 1 to 2 ounces. Flour mixes: 1 ounce. Flour: 1 ounce. Macaroni, spaghetti, noodles: Dry: ¾ ounce. Cooked, canned: 6 ounces.
5. Spreads for bread and crackers.	According to family practices		Examples: Cheese spreads. Peanut and other nut butters. Jam, jelly, marmalade, preserves. Sirup, honey. Apple and other fruit butters. Relish, catsup, mustard.
6. Fats and vegetable oil		Up to 1 pound or 1 pint.	Amount depends on extent of cooking possible. Kinds that do not require refrigeration.
7. Sugars, sweets, and nuts		1 to 2 pounds	Sugar, hard candy, gum, nuts, instant puddings.
8. Miscellaneous	According to family practices and extent of cooking possible.		Examples: Coffee, tea, cocoa (instant). Dry cream product (instant). Bouillon products. Flavored beverage powders. Salt and pepper. Flavoring extracts, vinegar. Soda, baking powder.

suggested in table 1. Teenagers are likely to need more than the amount in the table; younger children need less.

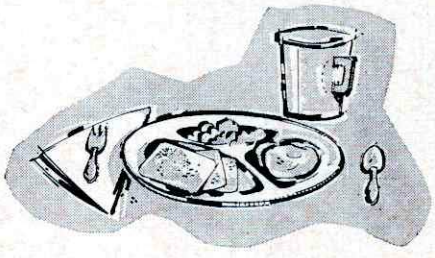
By including, each day, foods from the eight groups listed, members of your family can have a reasonably nutritious diet.

If necessary, include special kinds of milk and strained, chopped, or other specially prepared foods required for infants, toddlers, elderly persons, and others on limited diets.

Whenever possible, choose cans and jars in sizes that will fill your family's needs for only one meal. This is especially desirable for meat, poultry, fish, vegetables, evaporated milk, and other foods that deteriorate rapidly after a container is opened.

If your home food freezer is located in your basement or where you would have safe access to it after attack, you might count foods in it as some of your reserve supply.

Food spoilage in a well-filled, well-insulated home freezer does not begin until several days after power goes off. The length of the period before beginning of spoilage depends on the capacity of the freezer. If the capacity is 4 cubic feet, the period is 3 days; if 12 to 36 feet, 5 days.



Sample Meal Plans

Sample meal plans are presented on pages 8 and 9. These plans suggest the kinds of meals you could serve from the foods shown in the table on page 4.

Half of the meals fit a situation where there are no cooking facilities. Meals for the other days require facilities for heating water or food but not for any extended cooking.

The foods suggested are all fully cooked and safe for eating "as is" without cooking. If you have provided a sufficient variety of canned foods in your reserve supply, it is possible to have reasonably well-balanced meals. However, because of limited space and in order to use fewer dishes, it may be more practical to serve fewer foods at a meal and make the servings more generous.

Storing and Replacing Foods

If you have prepared a fallout shelter, keep your reserve food supply there. If you have no shelter, keep it in that part of your basement where you will be safest in case of attack.

In homes without basements and in apartments, your food stockpile would probably be stored in the kitchen or in a storage closet.

To maintain the eating quality of your reserve food supply, keep canned foods in a dry place, where the temperature is fairly cool—preferably not above 70° F. and not below freezing.

Protect food in paper boxes from rodents and insects by storing boxes in tightly closed cans or other metal containers; leave the foods in their original boxes. Keeping these foods in metal containers also extends the length of time they can be stored.

Eating quality was the first consideration in setting the maximum replacement periods given on this page. Many food items will be acceptable for a much longer period if storage temperatures do not usually exceed 70° F. Most of the foods suggested in table 1 would be safe to use after longer storage periods.

As time approaches for the replacement of particular food items, it is a good idea to use the food in family meals. As food items are used, replace them in the stockpile with fresh supplies. When you put in fresh supplies, put them at the back of the stockpile; keep older supplies in front.

Here are suggested maximum replacement periods for the kinds of food listed in table 1:

	Months
Milk:	
Evaporated	6
Nonfat dry or whole dry milk, in metal container	6
Canned meat, poultry, fish:	
Meat, poultry	18
Fish	12
Mixtures of meat, vegetables, cereal products	18
Condensed meat-and-vegetable soups	8
Fruits and vegetables:	
Berries and sour cherries, canned	6
Citrus fruit juices, canned	6
Other fruits and fruit juices, canned	18
Dried fruit, in metal container	6
Tomatoes, sauerkraut, canned	6
Other vegetables, canned (including dry beans and dry peas)	18
Cereals and baked goods:	
Ready-to-eat cereals:	
In metal container	12
In original paper package	1
Uncooked cereal (quick-cooking):	
In metal container	24
In original paper package	12
Hydrogenated fats, vegetable oil	12
Sugars, sweets, nuts:	
Sugar	will keep indefinitely
Hard candy, gum	18
Nuts, canned	12
Instant puddings	12
Miscellaneous:	
Coffee, tea, cocoa (instant)	18
Dry cream product (instant)	12
Bouillon products	12
Flavored beverage powders	24
Salt	will keep indefinitely
Flavoring extracts (e.g., pepper)	24
Soda, baking powder	12

SAMPLE MEAL PLANS: *No Cooking Facilities*

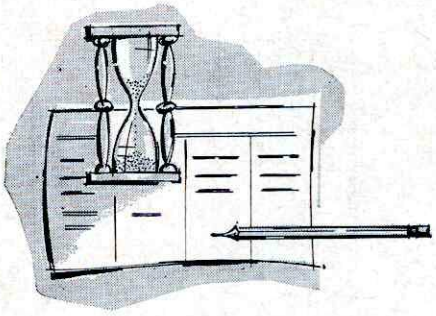
First day	Second day	Third day
MORNING		
Citrus fruit juice.[1] Ready-to-eat cereal. Milk, cold coffee,[2] or tea.[2] Crackers. Peanut butter or other spread.	Fruit juice.[1] Corned beef hash.[1] Crackers. Spread. Milk, cold coffee,[2] or tea.[2]	Grapefruit segments.[1] Ready-to-eat cereal. Vienna sausage.[1] Milk, cold coffee,[2] or tea.[2]
NOON		
Spaghetti with meat sauce.[1] Green beans.[1] Crackers. Spread. Milk, cold coffee,[2] or tea.[2]	Baked beans.[1] Brown bread.[1] Tomatoes.[1] Fruit.[1] Milk, cold coffee,[2] or tea.[2]	Chile con carne with beans.[1] Crackers. Fruit.[1] Cookies. Milk, cold coffee,[2] or tea.[2]
BETWEEN MEALS		
Fruit-flavored drink or fruit drink.	Milk.	Tomato juice.
NIGHT		
Lunch meat.[1] Sweet potatoes.[1] Applesauce.[1] Milk, cold coffee,[2] or tea.[2] Candy bar.	Pork and gravy.[1] Corn.[1] Potatoes.[1] Instant pudding. Fruit juice.[1]	Sliced beef.[1] Macaroni and cheese.[1] Peas and carrots.[1] Crackers. Milk, cold coffee,[2] or tea.[2]

[1] Canned. [2] Instant.

SAMPLE MEAL PLANS: *Limited Cooking Facilities*

First day	Second day	Third day
MORNING		
Citrus fruit juice.[1] Ready-to-eat cereal. Milk. Hot coffee,[2] tea,[2] or cocoa.[2]	Citrus fruit juice.[1] Hot cereal (quick-cooking). Milk. Hot coffee,[2] tea,[2] or cocoa.[2]	Prunes.[1] Ready-to-eat cereal. Milk. Crackers. Cheese. Hot coffee,[2] tea,[2] or cocoa.[2]
NOON		
Vegetable soup.[1] Potato salad.[1] Crackers. Ham spread.[1] Milk. Candy bar.	Beef-and-vegetable stew.[1] Green beans.[1] Crackers. Peanut butter. Milk.	Chile con carne with beans.[1] Tomatoes.[1] Crackers. Hot coffee,[2] tea,[2] or cocoa.[2]
BETWEEN MEALS		
Fruit-flavored drink or fruit drink.	Tomato juice.[1]	Fruit-flavored drink or fruit drink.
NIGHT		
Beef and gravy.[1] Noodles.[1] Peas and carrots.[1] Instant pudding. Hot coffee,[2] tea,[2] or cocoa.[2]	Tuna fish,[1] cream of celery soup,[1] mixed sweet pickles [1]—combined in one dish. Fruit.[1] Cookies. Hot coffee,[2] tea,[2] or cocoa.[2]	Lunch meat.[1] Hominy.[1] Applesauce.[1] Cookies. Peanuts. Hot coffee,[2] tea,[2] or cocoa.[2]

[1] Canned. [2] Instant.



You may want to label cans and containers with the date of purchase and the approximate date when the particular item should be replaced by a new supply. Suggested charts for keeping a record of your family food reserves are given on pages 13, 14, and 15 of this bulletin.

Equipment for Cooking and Serving

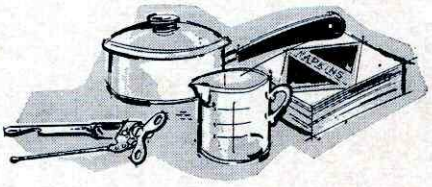
You need to have ready certain equipment for emergency cooking and serving.

A suggested list includes: a small, compact cooking unit, such as the ones used by campers; one or two cooking pans; disposable knives, forks, and spoons; paper plates, towels, cups and napkins; can and bottle openers; nursing bottles and nipples if there is a baby in the family; measuring cup; medicine dropper for measuring water purifier; matches; and a pocket knife.

If you already have plastic dishes, cups, forks, knives, and spoons, you may want to use them instead of disposable tableware. They would probably take less space to store, but water for washing them might not be available after an attack.

If disposable serving dishes and eating utensils are used, each family will need to estimate the number required for a 2 weeks' period.

Store your emergency cooking and serving equipment with your reserve food supply or near it.



WATER

You and your family can get along for quite a while without food, but only for a short time without water. Store a 2 weeks' supply of water for each member of your family NOW.

In moderate weather a person engaged in sedentary activity requires a minimum of one-half gallon of water per day for drinking and food preparation purposes—or 7 gallons for a 2 weeks' period.

Some of the need for liquids can be met by storing large quantities of fruit juice and soft drinks.

If you want to have water available for bathing, brushing teeth, and dishwashing, it should be of the same quality as water stored for drinking, and must be stored in addition to the amount mentioned above. Another 7 gallons of water is recommended for such purposes.

Some of your water requirements

could be met by making use of the water in home hot-water tanks and toilet tanks.

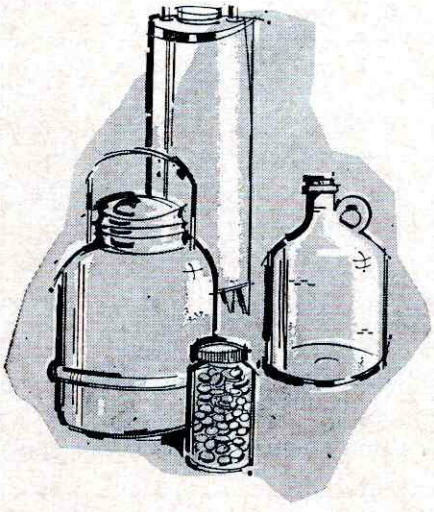
At the time of attack, water in these tanks would be safe to use. Know the location of your main incoming water valve so you can shut it off if directed by local health authorities, to prevent the entrance of contaminated water. As a safety measure the valve on the gasline to your hot-water heater should be turned off also.

Water from a hot-water tank can be obtained by opening the drain cock at the bottom of the tank. To get a free flow of water with the water inlet valve turned off, you may need to vent the tank by turning on a faucet somewhere on the waterline. Some hot-water tanks are automatically vented.

Safe Sources of Water for Storage

It is of the utmost importance that water stored for emergency use be clean. Any water that has been tested and approved by health authorities would be safe to store.

If there is any question about the safety or cleanliness of the water you intend to store or if it has not been tested and approved by health authorities, it must be purified before it is stored.



How to Purify Water

Boiling

The safest method of purifying water is to boil it vigorously for 1 to 3 minutes. To improve the taste of the water after it has been boiled, pour the boiled water from one clean container to another several times.

Easy bleach method

Any household bleach solution that contains hypochlorite, a chlorine compound, as its only active ingredient will purify water easily and inexpensively.

Bleach solutions with 5.25 percent of sodium hypochlorite are most common. They are available in grocery stores. Add the bleach solution to the water in any clean container in which it can be thoroughly mixed by stirring or shaking. The following table shows the proper amount of a 5.25-percent solution to add to water.

Amount of water	Amount of solution to add to—	
	Clear water	Cloudy water
1 quart (¼ gallon).	2 drops.	4 drops.
1 gallon	8 drops.	16 drops.
5 gallons	½ teaspoon.	1 teaspoon.

Add the chlorine solution to the water and stir, then let the mixture stand for 30 minutes. After this length of time the water should still have a distinct taste or smell of chlorine. If this taste or smell is not present, add another dose of the solution to the water and let the water stand another 15 minutes. The taste or smell of chlorine in water thus treated is a sign of safety. If you cannot detect chlorine in the water you are trying to purify by this method, do not store it. The chlorine solution may have weakened through age or for some other reason.

Iodine or tablet purification

If you have ordinary household 2-percent tincture of iodine in your home medicine chest you can use it to purify small quantities of water. Add 3 drops of tincture of iodine to each quart of clear water, 6 drops to each quart of cloudy water. For a gallon, add 12 drops for clear water, 24 drops for cloudy water. Stir thoroughly.

Water-purification tablets that release chlorine or iodine can be used safely to purify water. They are inexpensive and can be bought at most sporting goods stores and some drugstores.

If you use water-purification tablets, follow the directions on the package. Usually 1 tablet is sufficient for 1 quart of water; double the dosage if the water is cloudy.

Storing Water Reserves

Store your water reserves in thoroughly washed, clean containers, preferably of heavy plastic with tight-fitting caps, or in glass jugs or bottles with screw tops. Metal containers tend to give water an unpleasant taste.

You may want to buy 5-gallon containers of rigid plastic or glass for water storage. The plastic containers have the advantage of being shatterproof and lighter in weight than glass jugs.

Pack glass containers tightly against damage or shock. Put newspapers, excelsior, or other packing material between the containers to keep them from coming in contact with one another.

Clean water stored in this way should remain palatable for an indefinite period. It is advisable to check the containers every few months for leaks. At the same time check the water for cloudiness or other undesirable appearance or undesirable taste. If undesirable appearances or tastes have developed, the water should be changed.

WARNING

Water that has been exposed to radioactive fallout after an attack may be unsafe to drink. This would apply to water in open sources, such as uncovered wells or cisterns, streams, and ponds.

Water from wells and springs would be safe if the well or spring is protected from surface contamination.

OUR FAMILY FOOD RESERVE

Kind of food	Amount stored	Date purchased	Suggested replacement date

OUR FAMILY FOOD RESERVE

Kind of food	Amount stored	Date purchased	Suggested replacement date

FOR FURTHER INFORMATION . . .

The Family Fallout Shelter. OCDM miscellaneous publication, MP–15, June 1959. Contains plans for five basic fallout shelters. One of the shelters is designed specifically as a do-it-yourself project that you can build in your basement. Also includes other information on how to protect your family from the effects of radioactive fallout. You can obtain copies of this publication from your nearest Civil Defense office or by writing the Office of Civil and Defense Mobilization, Battle Creek, Mich.

Defense Against Radioactive Fallout on the Farm. Farmers' Bulletin 2107. Presents easily understood information on the effects of radioactive fallout on the farm. Includes recommendations for the protection of the farm family, for livestock, and for land and crops. Further information on radioactive fallout may be obtained from your county agricultural agent or from U.S. Department of Agriculture, Washington 25, D.C.

"*Fallout in Agriculture.*" A USDA color motion picture, 20 minutes in length, is available. For information about it, see your county agent.

Growth Through Agricultural Progress

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